

Virulence-A Mix

Adherence Factors
Adhesive Fimbriae
ADP-Ribosyl Transferases
Antigenic Diversity
Antitoxins
B. Burgdorferi P66
B15R Vaccinia Virus
Bacillus Subtilis DNA Competence Protein Comg-ORF2
Bacteremia
Bacteria-Induced Toxicity
Bacterial Endotoxins

Virulence-B Mix

Bacteriocins
BAD1 Blastomyces Adhesin 1
BCRF1 Epstein Barr Virus
BFP Bundle-Forming Pili
Biofilms
C1- Herpes Simplex Virus
Capsule [K Antigen]
Capsules
Cell Wall Peptidoglycans
Core Polysaccharide
Cycle-Inhibiting Factor
Cytolytic Virulence Factor

Virulence-Bacillus

Bacillus Cereus Phospholipase C
Bcet Gene Bacillus Cereus
Entfm Gene Bacillus Cereus
Ents Gene Bacillus Cereus
Hbl A Gene Bacillus Cereus
Hbl B Gene Bacillus Cereus
Hbl C Gene Bacillus Cereus
Hbl D Gene Bacillus Cereus
Nhe A Gene Bacillus Cereus
Nhe B Gene Bacillus Cereus
Nhe C Gene Bacillus Cereus
Piplc Gene Bacillus Cereus
Sph Gene Bacillus Cereus

Virulence-Bartonella

BadA/Vomp (Bartonella Adhesin A/Variably Expressed Outer Membrane Proteins)
BadA/VompA Bartonella Adhesin A/Variably Expressed Outer Membrane Protein A
BadA/VompC Bartonella Adhesin A/Variably Expressed Outer Membrane Protein C
BadA/VompD Bartonella Adhesin A/Variably Expressed Outer Membrane Protein D

Trw Genes - Bartonella
Virb Type IV Secretion System
Vird4 Type IV Secretion System

Virulence-Bacillus/Brucella/Entamoeba

150-Kda Gal/Galnac Lectin
Atx Anthrax Toxin
AtxA Anthrax Toxin A
AtxB Anthrax Toxin B
Btp1/Tcpb TIR Domain-Containing Protein
Cyclic Beta-1 2 Glucan
Gal/Galnac Lectin Entamoeba Histolytica
Rica Rab2 Interacting Conserved Protein A

Virulence-Bordetella 1

Adenylate Cyclase Toxin
Bordetella Pertussis Toxin
Brk Bordetella Pertussis
Bvgas Virulence Gene
Cya Toxin
Cyaa Toxin Bordetella Pertussis
Dnt Toxin A
Dnt Toxin B
Dnt Toxins

Virulence-Bordetella 2

FHA Protein
Fhac Protein
Fimbriae
Pertactin
Ptx Pertussis Toxin
PtxA Pertussis Toxin A
PtxB Pertussis Toxin B
Tcfa Tracheal Colonization Factor A
TCT Tracheal Cytotoxin
Trachea Toxin - Bordetella Pertussis

Virulence-Burkholderia

Bima Burkholderia Intracellular Motility A
Bipd Burkholderia Pseudomallei
Boaa Burkholderia Oligomeric Coiled-Coil Adhesin A
Boab Burkholderia Oligomeric Coiled-Coil Adhesin B
Bsa T3SS
Cdpa Outer Membrane Protein
Quorum-Sensing

Virulence-Campylobacter 1

CadF Campylobacter Adhesion To Fibronectin
CDT Cytolethal Distending Toxin
CDTA Cytolethal Distending Toxin A
CDTB Cytolethal Distending Toxin B
CDTC Cytolethal Distending Toxin C
CiaB Campylobacter Invasion Antigen B
CiaC Campylobacter Invasion Antigen C
JlpA Jejuni Lipoprotein A
LOS Lipooligosaccharide
MOMP Major Outer Membrane Protein
PEB1 Protein

Virulence-Campylobacter 2

Flagella
Flagella [H Antigen]
Flagella FleN
Flagella FleQ
Flagella FleR
Flagella FlgC
Flagella FlgD
Flagella FlgE
Flagella FlgG
Flagella FlgH
Flagella FlgI
Flagella FlgJ
Flagella FlgK
Flagella FlgL

Virulence-Camp 3

Flagella FlhA
Flagella FlhB
Flagella FlhF
Flagella FliC
Flagella FliD
Flagella FliE
Flagella FliF
Flagella FliG
Flagella FliH
Flagella FliI
Flagella FliJ
Flagella FliM
Flagella FliO
Flagella FliP
Flagella FliQ
Flagella FliR

Virulence-Clostridium 1

Alpha-Clostripain
Alpha-Toxin (Cpplc)
Alpha-Toxin (Novyi)
Alpha-Toxin (Septicum)
Beta Toxin
Beta2-Toxin
Botulinum Toxin - Clostridium Botulinum
C2 Toxin
C3 Toxin

Virulence-Clostridium 2

CDT Clostridium Difficile Toxin
CPE Clostridium Perfringens Enterotoxin
Epsilon-Toxin
Iota-Toxin
Mu-Toxin
Sialidase
Tcda/Toxin A
Tcdb/Toxin B
Tent Tetanus Neurotoxin
Tetanus Toxin - Clostridia Tetani
Theta Toxin C. Perfringens
Theta-Toxin/PFO Perfringolysin O

Virulence-D Mix

Dermonecrotic Toxin
Endospores
Endotoxins
Enterobactin
Enterochelin
Enterotoxins
Erythrogenic Toxin
Eukoyotic Iron-Binding Proteins
Exopolysaccharide Matrix
Filamentous Hemagglutinin
Fn-Binding Protein
Formyl Peptide Receptor-Like-1 Inhibitory Protein (Flipr)

Virulence-Enterococcus 1

Ace Adhesin To Collagen - E. Faecalis
Acm Virulence Gene
Aggregation Substance (AS) Enterococcus Faecalis
Aggregation Substance (AS) Surface Protein
AS Aggregation Substance
Bopd Protein
Cytolysin
Efaa Enterococcus Faecalis

Fsr Enterococcus Faecalis Regulator
Gelatinase
Hyaluronidase
Scm Second Collagen Adhesin Enterococcus Faecium
Spre Serine Protease Enterococcus Faecium

Virulence-Enterococcus 2

Esp Enterococcal Surface Protein
Esp Virulence Gene
EspA Protein
EspB Protein
EspC Protein
EspD Protein
EspF Protein
EspG Protein
EspH Protein
EspP Protease

Virulence-Escherichia Coli 1

Aafs Aggregative Adherence Fimbriae
Aerobactin
Afa/Dr Family
Asla
Chu E. Coli Hemin Uptake
Cytotoxic Necrotizing Factor 1 Cnf1
Cytotoxins
Dispersin Anti-Aggregation Protein
Dr Adhesins
EAST1 EAEC Heat-Stable Enterotoxin 1
ECP E. Coli Common Pilus
Efa-1/Lifa EHEC Factor For Adherence/Lymphocyte Inhibitory Factor

Virulence-Escherichia Coli 2

Ehxa Toxin Enterohemorrhagic Escherichia
Etpa Virulence Gene
F1C Fimbriae
Heat-Labile Toxin (LT)
Heat-Stable Toxin (ST)
Hemolysins
Ibes Invasion Of Brain Endothelial Cells
Intimin
Labile Toxin [LT] - E. Coli
Ler LEE Encoded Regulator
Lymphostatin/Lifa Lymphocyte Inhibitory Factor
Mannose-Resistant Adhesins Escherichia Coli

Virulence-Escherichia Coli 3

Map Mitochondria-Associated Protein
NleA/Espi Non-Locus-Of-Enterocyte-Effacement-Encoded Effector A
NleC Non-Locus-Of-Enterocyte-Effacement-Encoded Effector C
NleD Non-Locus-Of-Enterocyte-Effacement-Encoded Effector D
Ompa Outer Membrane Protein A
P Fimbriae
Paa Porcine Attaching-Effacing Associated Protein
Pet Plasmid-Encoded Enterotoxin
Pic Protein Involved In Intestinal Colonization
Pic Toxin (Serine Protease)

Virulence-Escherichia Coli 4

S Fimbriae
Sat Secreted Autotransporter Toxin
Stce Secreted Protease Of C1 Esterase Inhibitor From EHEC
Tcpc TIR Domain Containing Protein
Tir Translocated Intimin Receptor
Toxb Plasmid Virulence Gene - Escherichia Coli
Traj Virulence Gene
Tsh Temperature Sensitive Hemagglutinin

Virulence-G Mix

Galactosamine
Ge-Gi Herpes Simplex Virus
Germ Tube Formation
Gis Genomic Islands
Glucosamine Disaccharide
Glycocalyx
GXM Glucuronoxylomannan
HBL Hemolysin BL
Hemocin
Herpes Virulence Protein
Hia Protein
Hydrolytic Enzymes

Virulence-Haemophilus 1

Haemagglutinating Pili
Hap Haemophilus Adhesion And Penetration
Hgp Hemoglobin-Binding Protein
Hhua Hemoglobin:Haptoglobin Complexes Binding Protein
Hmbr Hemoglobin Receptor
Hsf Protein
HxuA Protein
HxuB Protein
HxuC Protein
Oapa Protein
P2 Protein

P5 Protein

Virulence-Haemophilus 2

HitA Virulence Gene

HitB Virulence Gene

HitC Virulence Gene

HMW1 High-Molecular-Weight Protein 1

HMW1A High-Molecular-Weight Protein 1A

HMW1B High-Molecular-Weight Protein 1B

HMW1C High-Molecular-Weight Protein 1C

HMW2 C High-Molecular-Weight Protein 2C

HMW2 High-Molecular-Weight Protein 2

HMW2A High-Molecular-Weight Protein 2A

HMW2B High-Molecular-Weight Protein 2B

Virulence-Helicobacter

Baba Blood Group Antigen Binding Adhesin

CagA Cytotoxin-Associated Antigen

Hopz H. Pylori Outer Membrane Protein

HP-NAP H. Pylori Neutrophil Activating Protein

Lewis Antigen

Oipa Outer Inflammatory Protein

Saba Sialic Acid-Binding Adhesin

Vaca Vacuolating Cytotoxin A

Vacb Vacuolating Cytotoxin B

Virulence-I Mix

Iap Invasion-Associated Protein

Invasion Factors

Invasion Genes

Iron Uptake

Iron-Binding Factors

Keratinase Enzyme

Lipase Exoenzyme

Lipooligosaccharides

Lipoteichoic Acids

LKT Leukotoxin

LOS Endotoxin

Virulence-Klebsiella/Mycoplasma

Cytadherence Organelle

K1 Capsular Serotype Klebsiella Pneumoniae

K2 Capsular Serotype Klebsiella Pneumoniae

Mucoid Phenotype Klebsiella Pneumoniae

P97/P102 Paralog Family

PulD Klebsiella Pneumoniae Pullulanase Secretion Protein

PulF Klebsiella Pneumoniae Pullulanase Secretion Protein

Surface Lipoproteins

Virulence-L Mix

LPS Region I = Lipid A

LPS Region II A And II B = Core (R) Antigens

LPS Region III + Region Iib With Regions Iia + Region I

LPS Region III = Somatic (O) Antigen Or O Polysaccharide

LPS T2SS Enzyme

Ltxa Aggregatibacter Actinomycetemcomitans

Megadalton Plasmid

Metabolic Virulence Factors

Metalloprotease (Camelysin)

Mmx toxin Morganella Morganii

M-Proteins

Mucosal Surface

Virulence-Legionella 1

Ccmc Virulence Gene

Csra Virulence Gene

Dot/Icm Defect In Organella Trafficking/Intracellular Multiplication

Eml Loci Early Stage Macrophage-Induced Locus

FeoA Protein

FeoB Protein

Frga Fur Regulated Gene

Gspa Global Stress Gene

Iraab Virulence Gene

Laia Virulence Gene

Legiobactin

Virulence-Legionella 2

LetA Virulence Gene

LetS Virulence Gene

Liga L. Pneumophila Infectivity Gene

Lipid A Legionella Pneumophila

Mila Macrophage Infectivity Loci A

Mip Macrophage Infectivity Potentiator

Pht Phagosomal Transporter

Pmi Loci Protozoa And Macrophage Infectivity

Rela Virulence Gene

Rpos Virulence Gene

SodB Stress Protein

Virulence-Listeria 1

Acta Protein

Ami Protein

Auto Protein

BSh Virulence Gene

Clpc Stress Protein
Clpe Stress Protein
Clpp Stress Protein
Gtca
Hpt Hexose Phosphate Transporter
Hsp60
Lap Listeria Adhesion Protein
Lapb Protein

Virulence-Listeria 2

InlA Internalin
InlB
InlC Immune Modulator
InlF
InlJ
InlK Immune Modulator
Listeriolysin O
LLS Listeriolysin S
LntA Listeria Nuclear Targeted Protein A
Lpea Lipoprotein Promoting Entry
Lpla1 Protein
Lsp Lipoprotein-Specific Signal Peptidase

Virulence-Listeria 3

Mpl Toxin
Oata Listeria Peptidoglycan Modifying Enzyme
P60 Protein
Pgda Listeria Peptidoglycan Modifying Enzyme
PlcA Toxin
PlcB Toxin
Prfa Pleiotropic Regulatory Factor
Prsa2 Peptidyl Prolyl Cis-Trans Isomerase (Ppiase)
Smase Toxin
Svpa Surface-Virulence Associated Protein
Vip Virulence Protein

Virulence-Mycobacterium 1

Ahpc Stress Protein
Antigen 85 Protein
DevR Virulence Gene
DevS Virulence Gene
Erp Exported Repetitive Protein
ESAT-6/CFP-10 Early Secretory Antigenic Target Of 6 Kda/Culture Filtrate Protein Of 10 Kda
ESX-1 ESAT-6 Secretion System-1
ESX-5 ESAT-Like Secretion System
Fadd33 Virulence Gene
Hbha Heparin-Binding Haemagglutinin Protein

Hspr Heat Shock Genes Repressor
Hspx Heat-Shock Protein

Virulence-Mycobacterium 2

Ider Iron-Dependent Regulator
Isocitrate Lyase
LAM Lipoarabinomannan
Lipf Virulence Gene
Mmaa4 Virulence Gene
MprA Mycobacterial Persistence Regulator A
MprB Mycobacterial Persistence Regulator B
Nitrate Reductase
Panc (Pantothenate Synthetase)
Pand (Aspartate-1-Decarboxylase)
Pcaa Virulence Gene

Virulence-Mycobacterium 3

Rela Virulence Gene
PDIM Phthiocerol Dimycocerosate
PE/PE-PGRS Proteins
PhoP Regulon
Phospholipases
PLC Phospholipase C
Sige
Sigf
Sigh
SodA Stress Protein
SodC Stress Protein
Whib3

Virulence-N Mix

NeuA CMP-N-Acetylneuraminic Acid Synthetase
NeuB CMP-N-Acetylneuraminic Acid Synthetase
NeuC CMP-N-Acetylneuraminic Acid Synthetase
NeuD CMP-N-Acetylneuraminic Acid Synthetase
Neurotoxins
Non Ribosylating Toxins
Nsp1 SARS Virus
O Polysaccharides
Obligate Intracellular Pathogens
O-Specific Chains
PA-X Protein
Phenotypic Switching

Virulence-Neisseria 1

Hmbr Hemoglobin Receptor
Fara Membrane Fusion Protein

Farb Fatty Acid Resistance System
Farb Cytoplasmic Membrane Transporter Protein
FbpA Fibronectin-Binding Protein A
Fbpa Periplasmic Fe³⁺ Binding Protein
FbpA Virulence Gene
FbpB Fibronectin-Binding Protein B
FbpB Virulence Gene
FbpC Virulence Gene
Fhbp Immune Modulator
Hpua Lipoprotein
Hpub Transmembrane Protein

Virulence-Neisseria 2

KatA Stress Protein
KatB Stress Protein
KatG Stress Protein
Lbp Lactoferrin-Binding Protein
Meningococcal Capsular Polysaccharides
Nspa Neisserial Surface Protein A
Opa Opacity-Associated
Opc Beta Barrel Protein
PorA Proteins Neisseria Meningitidis
PorB Proteins Neisseria Meningitidis
Porin A
Porin B
Recn Stress Protein

Virulence-Neisseria 3

MntA Stress Protein
MntABC Manganese Transport System
MntB Stress Protein
MntC Stress Protein
Msra Stress Protein
MsraB Methionine Sulphoxide Reductase
Msrb Stress Protein
Mtra Activator Protein
MtrC Protein
MtrCDE Multiple Transferable Resistance System
MtrD Protein
MtrE Protein
MtrR Repressor Protein

Virulence-P Mix

Plasmid Pxo1
Plasmid Pxo2
Plasmids
Plcr Pleiotropic Regulon

Polysaccharide Capsule
Porphyromonas Gingivalis
Protein F
Protein Toxins
Psms Phenol Soluble Modulins
Pyrogenic Toxin Superantigens (Ptsags)
Renewed Virulence
Repeating Oligosaccharide Residues

Virulence-Pseudomonas 1

Alginate Exopolysaccharide
Alginate Mucoïd Exopolysaccharide
Alkaline Protease
Exos Cytotoxin
Exos Exoenzyme S
Exot Cytotoxin
Exot Exoenzyme T
Exou Exoenzyme U
Exoy Exoenzyme Y
HSI-I Hcp1 Secretion Island I

Virulence-Pseudomonas 2

Lasa Elastase Gene Elastase A Pseudomonas
Lasa Serine Protease
Lasb Elastase Gene Elastase B Pseudomonas
LPS Lipopolysaccharide Endotoxins
Pycocyanin - Pseudomonas Aeruginosa
Pyochelin
Pyocyanin
Pyoverdine
Toxa Gene Pseudomonas Aeruginosa
Xcp Secretion System

Virulence-Pseudomonas/Pili 1

Type IV Pili
Type IV pili ChpA
Type IV pili ChpB
Type IV pili ChpC
Type IV pili ChpD
Type IV pili ChpE
Type IV pili FimT
Type IV pili FimU
Type IV pili FimV
Type IV pili PilA
Type IV pili PilB
Type IV pili PilC
Type IV pili PilD

Type IV pili PilE
Type IV pili PilG
Type IV pili PilH
Type IV pili PilI
Type IV pili PilJ

Virulence-Pseudomonas/Pili 2

EF-Fu Type IV Pili
Fsap Type IV Pili
Type IV pili PilK
Type IV pili PilM
Type IV pili PilN
Type IV pili PilO
Type IV pili PilP
Type IV pili PilQ
Type IV pili PilR
Type IV pili PilS
Type IV pili PilT
Type IV pili PilU
Type IV pili PilV
Type IV pili PilW
Type IV pili PilX
Type IV pili PilY1
Type IV pili PilY2
Type IV pili PilZ
Type VII Secretion System

Virulence-R Mx

Rhamnolipid
Rotavirus NSP4 Enterotoxin
Ruminant-Specific Leukotoxin (Lkt)
Secreted Autotransporter Toxin
Siderophores
T2SS Type II Secretion System
T3SS1 Type III Secretion System
T3SS2 Type III Secretion System
T6SS Type VI Secretion System
T6SS-1
Tbp Transferrin-Binding Protein
Teichoic Acids

Virulence-Salmonella 1

PhoP Regulon
Agf Thin Aggregative Fimbriae
Fur Ferric Uptake Regulator
Grva Gifsy-Related Virulence
Lpf Long Polar Fimbriae

MgtA Magnesium Transporter A
MgtB Magnesium Transporter B
MgtC Magnesium Transporter C
Mgtc Virulence Gene
Mig-14 Macrophage-Inducible Gene-14
Mig-5 Macrophage-Inducible Gene-5
Misl Signal Peptide
Pef Plasmid-Encoded Fimbriae
Per Plasmid-Encoded Regulator
PhoQ Regulon
Ratb Intestinal Colonization Factor
Rck Resistance To Complement Killing

Virulence-Salmonella 2

Shda Intestinal Colonization Factor
Sinh Intestinal Colonization Factor
Sipa Salmonella-Actin Binding Proteins
Sipc Salmonella-Actin Binding Proteins
Sipd Salmonella
SodCi Stress Protein
Sopb Salmonella Enterica Effector Molecules
Sope Salmonella Enterica Effector Molecules
Sope2 Salmonella Enterica Effector Molecules
SPI-1 Salmonella Pathogenicity Island 1
SPI-2 Salmonella Pathogenicity Island 2
SPI-3 Salmonella Pathogenicity Island 3
SPI-4 Salmonella Pathogenicity Island 4
SPI-5 Salmonella Pathogenicity Island 5
Spv Salmonella Plasmid Virulence Toxin

Virulence-Shigella 1

Aerobactin
Icsa (Virg) Ics For Intercellular Spread
Icsp (Sopa) Serine Protease
Ipad Shigella
NAD Glycohydrolase Toxin Of Shigella Flexneri
Shet1 Shigella Enterotoxin 1
Shet1a Shigella Enterotoxin 1A
Shet1b Shigella Enterotoxin 1B
Shet2 Shigella Enterotoxin 2
SHI-1 Shigella Pathogenicity Island 1
SHI-2 Shigella Pathogenicity Island 2
SHI-3 Shigella Pathogenicity Island 3

Virulence-Shigella 2

Shiga StxA
Shiga StxB

Shu Heme Utilization
ShuA Protein
ShuS Protein
ShuT Protein
ShuU Protein
ShuV Protein
Siga Shigella Iga-Like Protease Homology
SRL Shigella Resistance Locus
Stx Shiga Toxin

Virulence-Staphylococcus 1

Adsa Adenosine Synthase A
Agr Protein (Accessory Gene Regulator)
Alpha-Hemolysin Toxin
Aureolysin
Beta-Hemolysin Toxin
CAN Collagen Binding Protein
CHIPS Chemotaxis Inhibitory Protein - Staphylococcus
Clumping Factor
Clumping Factor (Clf) A Protein
Clumping Factor (Clf) B Protein
Coagulase
Delta-Hemolysin Toxin

Virulence-Staphylococcus 2

Elastin-Binding Protein
Exfoliatin
Exfoliating Toxin - Staphylococcus Aureus
Exfoliative Toxins A ETA
Exfoliative Toxins B ETB
Exoa Exotoxin A
Extracellular Adherence Protein (Eap)
Extracellular Adherence Protein/MHC Analogous Protein
Extracellular Fibrinogen Binding Protein (Efb)

Virulence-Staphylococcus 3

Fibrinogen (Fg) Binding MSCRAMM Clumping Factor A (Clfa)
Fnbps Fibronectin Binding Proteins
Fnbps Fibronectin-Binding Proteins
Gamma-Hemolysin Toxin
Intercellular Adhesion Proteins
Isd Iron-Regulated Surface Determinant
Leukocidin
PVL Pantone Valentine Leukocidin
PVL Pantone-Valentine Leukocidin Toxin
Sbi Staphylococcal Binder Of Immunoglobulin
SCIN Staphylococcal Complement Inhibitor

Sdr Ser-Asp Rich Proteins

Virulence-Staphylococcus 4

SE Staphylococcal Enterotoxin

Spa Protein A

Staph Enterotoxin A

Staph Enterotoxin C

Staphopain

Staphylocoagulase

Staphylococcal Enterotoxin B SEB

Staphylococcal Protein A (Spa)

Staphylococcal Scalded Skin Syndrome (SSSS).

Staphylococcus Aureus Expresses A Collagen-Binding MSCRAMM (Microbial Surface Component Recognizing Adhesive Matrix Molecules)

Staphylokinase

V8 Protease

Vwbp Von Willebrand Factor-Binding Protein

Virulence-Staphylococcus 5

Staphylococcus Capsule Cap8A

Staphylococcus Capsule Cap8B

Staphylococcus Capsule Cap8C

Staphylococcus Capsule Cap8D

Staphylococcus Capsule Cap8E

Staphylococcus Capsule Cap8F

Staphylococcus Capsule Cap8G

Staphylococcus Capsule Cap8H

Staphylococcus Capsule Cap8I

Staphylococcus Capsule Cap8J

Staphylococcus Capsule Cap8K

Staphylococcus Capsule Cap8L

Staphylococcus Capsule Cap8M

Staphylococcus Capsule Cap8N

Staphylococcus Capsule Cap8O

Staphylococcus Capsule Cap8P

Virulence-Streptococcus

Cell Wall Peptidoglycans

Alpha-C Protein

Beta-C Protein Streptococcal Surface Protein

CAMP Factor Toxin

Cbpa Choline Binding Protein

Cbps Choline Binding Proteins

Fbpc1 Fibronectin-Binding Protein C1

Fbpc2 Fibronectin-Binding Protein C2

Fbsa Streptococcal Surface Protein

Fbsa Streptococcus Agalactiae

HVR Hypervariable Region - Streptococcal M22 Protein
SIC Streptococcal Inhibitor Of Complement-Mediated Lysis
Speb Streptococcal Pyrogenic Exotoxin B
Spes Streptococcal Pyrogenic Exotoxins

Virulence-T Mix

Type VII Secretion System
Thigmotropism
Toxic Lipid A Component
Toxic Shock Syndrome Toxin-1
Tropism Protein
Trw Type IV Secretion System
TTSS Type III Secretion System
TTSS(SPI-1 Encode)
TTSS(SPI-2 Encode)
Type 1 Fimbriae

Virulence-U Mix

UL18 Cytomegalovirus
Urease
Uronic Acid
Vi Antigen
Vi Bacterial Polysaccharide
Virokines
Virulence Genes
Virulent Poliovirus
Xanthomonas Campestris Extracellular Enzyme Secretion Factor Xpsf
YrpA Operon
YrpB Operon

Virulence-Vibrio 1

ACE Accessory Cholera Enterotoxin
ACF Accessory Colonization Factor
AI-2 Autoinducer-2
CAI-1 Cholerae Autoinducer-1
Ctx Cholera Toxin
CtxA Cholera Toxin A
CtxB Cholera Toxin B
Hyla+ Vibrio Cholerae
RTX Toxin
Rtx Toxin RtxA
RtxA+

Virulence-Vibrio 2

TCP Toxin-Coregulated Pilus
Tcpc El Tor- Vibrio Cholerae
Tcpe

Tcpf

Toxin-Coregulated Pilus (TCP) *Vibrio Cholerae*

Toxr *Vibrio Cholerae*

VPI *Vibrio Pathogenicity Island*

VPI-2 *Vibrio Pathogenicity Island 2*

Vvrtxa *Toxin Vibrio Vulnificus*

Zot *Zona Occludens Toxin*

Virulence-Yersinia

Alginate Exopolysaccharide

Ail Attachment-Invasion Locus

CNFX Cytotoxic Necrotizing Factor Y

F1 Antigen Fraction 1 Capsular Antigen

Invasin

Myf/Ph6 Antigen Muroid *Yersinia* Factor

O-Antigen

Pla Plasminogen Activator Protein

Yada Proteins

Yada *Yersinia Adherence Protein A*

Yada(Ent)

Yada(Pstb)

Yersinia Enterocolitica Yop Secretion Determinant YscC

Yersiniabactin

Ymt *Yersinia Murine Toxin*

Yop *Yersinia Outer Protein H*

YstA Toxin

YstB Toxin

esive